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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/848,831	05/19/2004	James F. Bredt	ZCO-100	4783
51414 7590 03/23/2007 GOODWIN PROCTER LLP PATENT ADMINISTRATOR EXCHANGE PLACE BOSTON, MA 02109-2881			EXAMINER AHMED, SHEEBA	
			ART UNIT 1773	PAPER NUMBER
			MAIL DATE 03/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action Before the Filing of an Appeal Brief	Application No. 10/848,831	Applicant(s) BREDT ET AL.	
	Examiner Sheeba Ahmed	Art Unit 1773	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 06 February 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).


4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1 - 25, 40, 60, 68, 76, 78, 80, 82, and 83.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☒ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.


3/19/07

Continuation of 11. does NOT place the application in condition for allowance because: Applicants traverse the rejection of claims 1-25, 40, 60, 76, 78, 80, 82, and 83 under 35 U.S.C. 102(b) as being anticipated by Cima et al. (US 5,387,380), the rejection of claims 1 - 25, 40, 60, 68, 76, 78, 80, 82, and 83 under 35 U.S.C. 102(b) as being anticipated by Bredt et al. (US 5,902,441), and the rejection of claims 76, 78, 80, and 82 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of U.S. Patent No. 5,902,441 and submit that the above references do not teach a thermoplastic particulate material and an adhesive material. However, the Examiner disagrees.

Cima et al. disclose the use of 3D printing techniques to manufacture prototype parts (Column 1, lines 14-16). A powdered material such as powdered ceramic, metal or plastic is deposited in sequential layers one on top of the other. After each layer is deposited, a binder material is provided on top to form the part in question (Column 3, lines 1-20). While the layers become hardened as each of the layers is laid down, the part may be heated or cured to further promote binding of the powdered particles (Column 4, lines 44-55). The powder may be deposited in dry or wet form (Column 5, lines 18-23). Particle sizes may range in the 5-20 micron size. Colloidal dispersion of particles can be obtained in a liquid vehicle using chemical dispersants (Column 8, lines 66-68). The binder material may be such that the bonded particles have a high binding strength as each layer is deposited so that when all the layers have been bonded, the component formed thereby is ready for use without further processing (Column 9, lines 6-32). Organic binders can be used and examples include cellulosic binders and butyral resins (Column 10, lines 31-36). Binder particles entrained in liquid can be used (Column 11, lines 50-52). Many possible combination of powder and binder materials can be used. Examples include ceramic powders in either organic or inorganic binder and plastic powder with a solvent binder or a plastic binder such as a epoxy plastic material (Column 12, lines 11-21).

Bredt et al. disclose an article made up of layers if a mixture of particles of an adhesive and a filler, the adhesive can be activated by a fluid containing a solvent and other processing aids which modify the working properties of the fluid and adhesive or which enhance the mechanical properties of the finished articles. The adhesive is directly mixed in with the filler and the method includes applying a layer of the mixture onto a flat surface, applying that fluid that activates the adhesive causing the particles to come together in a solid layer. Successive layers are applied and repeated until the required number of portions have been formed (Column 3, lines 35-67). Processing aids include humectants, flow rate enhancers, and dyes. The particle material may include a plurality of particles having a mean diameter of about 10-300 microns (Column 5, lines 1-36). The adhesive provides high bonding strength and preferred adhesives include water soluble compounds such as sugars, carbohydrates, protein. Specific examples include the polymers listed in Column 8. The filler is selected so that it is sparingly soluble in the fluid and examples include starches such as maltodextrin (Column 8, lines 15-36). The fluid that activates the adhesive includes a solvent that may be aqueous or non aqueous and examples include water, methyl alcohol, ethyl alcohol, acetone and acetic acid (Column 9, lines 28-41).

Hence, the above rejections are maintained.